WHAT IS CLAIMED IS:

- 1. A process for making a direct dispersion of a photographically useful material comprising: mixing (i) an aqueous phase and (ii) a liquid organic phase under conditions of shear or turbulence to form a dispersion of the organic phase dispersed in the aqueous phase; wherein the liquid organic phase comprises one or more photographically useful materials and one or more organic solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50, and wherein the weight ratio of the sum of the solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 to the photographically useful materials does not exceed 0.25.
- 2. The process of claim 1, wherein the one or more organic solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 are selected from amides, anilides, phosphate esters, phosphine oxides, sulfoxides, ureas and ketones.
- 3. The process of claim 1, wherein the one or more organic solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 are selected from compounds of Formulas I through VI:

I
$$R_1 \longrightarrow C \longrightarrow N$$
 R_2 R_3

II
$$OR_4$$

$$R_5O - P = O$$

$$OR_6$$

III
$$R_{8} - P = O$$
 $R_{9} - P = O$

IV $R_{10} > S = O$

V $R_{12} > N - C - N - R_{1}$

VI $C = R_{16} - C - R_{17}$

wherein R_1 through R_{17} each independently represent hydrogen or a substituted or unsubstituted alkyl or aryl group.

4. The process of claim 3, wherein the liquid organic phase comprises a combination of organic solvents consisting essentially of one or more primary permanent high-boiling solvents and the one or more solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50, where each primary solvent employed in the organic phase mixture of the dispersions has a boiling point of at least 150° C and either (a) a molecular weight of greater than 300, (b) a solvatochromic parameter β value less than 0.50, or (c) a molecular weight of greater than 300 and a solvatochromic parameter β value less than 0.50, and where the weight ratio of the sum of the primary permanent solvents to the sum of the solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 is greater than 1.

- 5. The process of claim 4, wherein the photographically useful material comprises a dye image-forming coupler.
- 6. The process of claim 5, wherein the weight ratio of the sum of the primary permanent solvents to the sum of the solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 is at least 2.
- 7. The process of claim 5, wherein the weight ratio of the sum of the primary permanent solvents to the sum of the solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 is at least 3.
- 8. The process of claim 5, wherein the weight ratio of the sum of the primary permanent solvents to the sum of the solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 is at least 4.
- 9. The process of claim 5, wherein the weight ratio of the sum of the solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 to the photographically useful materials does not exceed 0.20.
- 10. The process of claim 5, wherein a primary solvent employed in the organic phase mixture of the dispersion is a phthalic acid alkyl ester, a phosphoric acid ester of molecular weight greater than 300, a citric acid ester, a benzoic acid ester, an aliphatic amide of molecular weight greater than 300, a mono or polyvalent alcohol of molecular weight greater than 300, or an aliphatic dioic acid alkyl ester.

- 11. The process of claim 5, wherein a primary solvent employed in the organic phase mixture of the dispersion is a phthalic acid alkyl ester, a phosphoric acid esters of molecular weight greater than 300, or an aliphatic dioic acid alkyl ester of the formula R-(CH₂)_m-R' wherein R and R' each represent an alkoxycarbonyl group containing not more than 8 carbon atoms and m is an integer of from 1 to 10.
- 12. The process of claim 5, wherein the primary solvent comprises tricresylphosphate or dibutylsebacate.
- 13. The process of claim 5, wherein the weight ratio of dispersed coupler to primary solvents is from 0.1:1 to 10:1.
- 14. The process of claim 5, wherein the weight ratio of dispersed coupler to primary solvents is from 0.25:1 to 5:1.
- 15. The process of claim 5, wherein the weight ratio of dispersed coupler to primary solvents is from 0.25:1 to 2:1.
- 16. The process of claim 3, wherein R_1 through R_{17} each independently represent a substituted or unsubstituted alkyl or aryl group.
 - 17. The process of claim 3, wherein:

in Formula I, R₁ is alkyl or aryl, R₂ is alkyl, and R₃ is alkyl or aryl, wherein the total number of carbon atoms contained in R₁, R₂, and R₃ is less than 20;

in Formula II, R₄, R₅ and R₆ are alkyl or aryl, wherein the total number of carbon atoms contained in R₄, R₅, and R₆ is less than 15;

in Formula III, R_7 , R_8 and R_9 are alkyl groups, and the total number of carbon atoms contained in R_7 , R_8 and R_9 is less than 20;

in Formula IV, R_{10} and R_{11} are alkyl groups, wherein the total number of carbon atoms contained in R_{10} and R_{11} is less than 19;

in Formula V, R₁₂, R₁₃, R₁₄, and R₁₅ are alkyl or aryl, wherein the total number of carbon atoms contained in R₁₂, R₁₃, R₁₄, and R₁₅ is less than 20; and in Formula VI, R₁₆ and R₁₇ combine to form an aliphatic closed ring.

- 18. The process of claim 17, wherein the one or more organic solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 includes at least one compound of Formula I, where R_1 is a straight chain alkyl or aryl group, R_2 is a straight chain alkyl group, and R_3 is straight chain alkyl or aryl group, or R_1 combines with R_2 or R_3 to form a closed ring.
- 19. The process of claim 18, wherein the compound of Formula I is N,N-diethylbutyramide, N,N-diethyl-m-toluamide, N-butylacetanilide, or N-methylpyrrolidone.
- 20. The process of claim 17, wherein the one or more organic solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 includes at least one compound of Formula II, where R_4 , R_5 and R_6 are alkyl groups.
- 21. The process of claim 20, where the compound of Formula II is trimethylphosphate or triethylphosphate.
- 22. The process of claim 17, wherein the one or more organic solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 includes at least one compound of Formula III.
- 23. The process of claim 22, wherein the compound of Formula III is trimethylphosphine oxide or triethylphosphine oxide.

- 24. The process of claim 17, wherein the one or more organic solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 includes at least one compound of Formula IV.
- 25. The process of claim 24, wherein the compound of Formula IV is dimethylsulfoxide or di-n-butylsulfoxide.
- 26. The process of claim 17, wherein the one or more organic solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 includes at least one compound of Formula V.
- 27. The process of claim 26, where the compound of Formula V is tetramethylurea or 1,3-dimethyl-1,3-diphenylurea.
- 28. The process of claim 17, wherein the one or more organic solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 includes at least one compound of Formula VI.
- 29. The process of claim 28, where the compound of Formula VI is cyclohexanone or cyclopentanone.
- 30. The process of claim 1, wherein the weight ratio of the sum of the solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 to the photographically useful materials does not exceed 0.20.
- 31. The process of claim 1, wherein the photographically useful material comprises a dye image-forming coupler.

- 32. The process of claim 1, wherein the liquid organic phase comprises one or more photographically useful materials and one or more organic solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 250, and a solvatochromic parameter β value greater than or equal to 0.50, and wherein the weight ratio of the sum of the solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 250, and a solvatochromic parameter β value greater than or equal to 0.50 to the photographically useful materials does not exceed 0.25.
- 33. The process of claim 1, wherein the liquid organic phase comprises one or more photographically useful materials and one or more organic solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.60, and wherein the weight ratio of the sum of the solvents having a boiling point of at least 150° C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.60 to the photographically useful materials does not exceed 0.25.
- 34. The process of claim 1, wherein the liquid organic phase comprises one or more photographically useful materials and one or more organic solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.70, and wherein the weight ratio of the sum of the solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.70 to the photographically useful materials does not exceed 0.25.
 - 35. A direct dispersion obtained by the process of claim 1.
- 36. A photographic element comprising one or more light sensitive silver halide emulsion imaging layers having associated therewith a direct

dispersion obtained by the process of claim 1, wherein the coated level of solvents having a boiling point of at least 150°C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50 in any layer of the element is no greater than 200 mg/m².